

**First Record of the Batfishes, *Malthopsis annulifera*
(Pisces: Ogcocephalidae) from Korea**

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ABSTRACT

A rare species of Ogcocephalid fish, *Malthopsis annulifera* Tanaka, was recently collected from coastal waters in East Sea, Korea. This species is redescribed as new record to Korea.

Key words: *Malthopsis annulifera*, Ogcocephalidae, First record, Korea

INTRODUCTION

The previous records of the family Ogcocephalidae of Korea were those of Mori (1952) and Chyung (1977) who listed 2 species of 2 genera from Korea. Among them, the genus *Malthopsis* Alcock 1891, is distinguished from other similar genera by the disk which is triangular, usually wider than long (Jordan, 1902), and its members have been found mainly in the Indo-West Pacific region. About 6 species of the genus are known in the world (Nelson, 1994). This genus in Korea has been poorly known until now except for a well known species *M. lutea* from Pusan by Mori(1952).

In 1995, a single specimen of *M. annulifera* was collected by otter trawls in the southern East Sea of Korea, during survey of the Korea fish fauna. This is the first record of *M. annulifera* from the East Sea (Sea of Japan) and waters adjacent to Korea. The purpose of the present paper is to redescribe the above species and provide a key to the Korean members of this genus

Counts and measurements are adopted from Hubbs and Lagler (1964) with minor modifications. All measurements were made with digital calipers and expressed in millimeters. Vertebral counts and rudimentary fins were from radiographs. The specimen examined was collected from off Gori, East

Sea on 28 February, 1996 with otter trawls. The specimen examined is deposited in the Department of Biology, Chonbuk National University, Chonju, Korea.

DESCRIPTION

Family Ogcocephalidae 부치과

Genus ***Malthopsis*** Alcock, 1891 꼭갈치 속

Malthopsis lutea Alcock, 1891 꼭갈치

Malthopsis luteus Alcock, 1891, p. 26, pl. 8, figs. 2, 2a (type locality: Andaman Sea); Mori, 1952, p. 195.

***Malthopsis annulifera* Tanaka, 1908 원꼭갈치 (신칭) (Fig. 1)**

Malthopsis annulifera Tanaka, 1908, p. 44 (type locality: Sagami Sea, Japan).

Material examined. 1 specimen, off Gori, Yangsan-gun, Kyongnam-do, East Sea. CNUC 23534, 49.9 mm in standard length, 28 February 1996.

Description. Meristic counts are shown in Table 1.

Proportions of measurements as a percentage of standard length: body depth 14.4%; head length 46.1%; predorsal length 64.3%; preanal length 78.2%; eye diameter 9.8%; snout length 5.4%; interorbital width 8.8%; mouth width 14.0%; caudal peduncle length 16.2%; caudal peduncle depth 7.2%; pectoral fin length 24.4%; ventral fin length 16.4%. Dorsal surface of dark covered with dermal ossicles except for opercular and shoulder regions. Tail mostly covered with large bony tubercles. Ventral surface almost smooth, but sometimes with many ossicles between bases of pelvic fins. Subopercular spine protruding, with prominent spinules, one of them directed forward (Fig. 2). Longest anal fin ray not reaching to base of caudal fin.

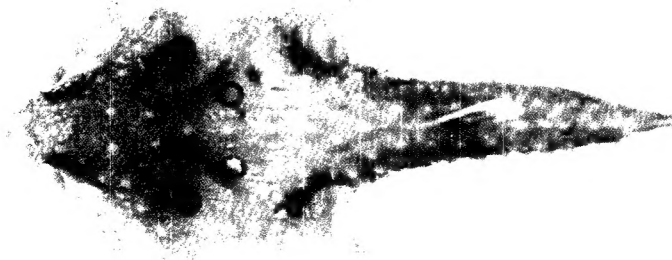


Fig. 1. *Malthopsis annulifera*, 49.9 mm in SL, CNUC 23534, Gori, East Sea.

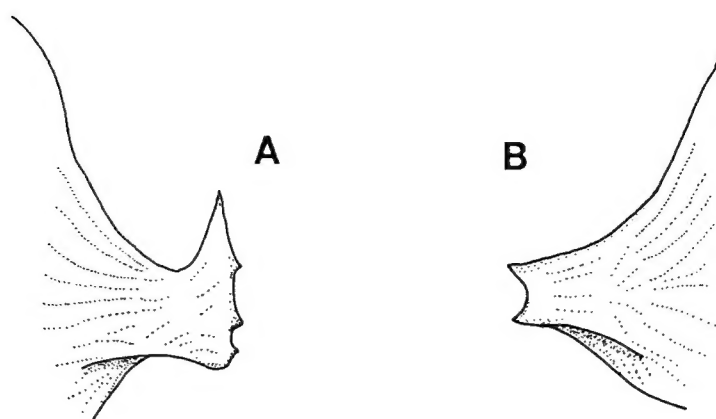


Fig. 2. Subopercular spine: A, *M. annulifera*; B, *M. lutea*.

Color. In 10% formalin: Dorsal surface of dark yellowish brown, furnished with 6 blackish brown ring-like markings. Ventral surface white.

Distribution. Known from the East Sea (off Gori) of Korea, Japan, East China Sea, Philippines in depths of 100-360m.

Remarks. *Malthopsis annulifera* is similar to *M. lutea* in the color pattern and the morphological characters, but *M. annulifera* has 6 blackish brown ring-like markings on the dorsal surface and subopercular spine of directed forward (*versus* sideward in *M. lutea*). A specimen of *M. annulifera* in the present study agrees well with the original description of Tanaka (1908) and in the Japan (Yamada, 1993; Yamakawa, 1984).

Key to the species of *Malthopsis* from Korea

Color of dorsal surface with 6 blackish brown ring-like markings; subopercular spine with a single spinle directed forward at tip (Fig. 2A)..... *M. annulifera*
 Color of dorsal surface without blackish brown ring-like marking; subopercular spine with two spinules are not directed forward (Fig. 2B)*M. lutea*

Table 1. Meristic counts of *Malthopsis annulifera* and *M. lutea*

Characters	<i>M. annulifera</i>			<i>M. lutea</i>	
	Present study	Yamakawa (1984)	Yamada (1993)	Yamakawa (1984)	Yamada (1993)
Standard length (mm)	49.9 (n=1)	59~80 (n=6)		49~70 (n=5)	
Dorsal fin rays	5	5	4~6	5	5~6
Anal fin rays	4	4	4	4	4
Pectoral fin rays	1,5	1,5	1,5	1,5	1,5
Ventral fin rays	12	12	11~12	12~13	11~12
Vertebrae	17				

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RECEIVED: 23 February 1998

ACCEPTED: 23 March 1998

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요 약

한국산 부치과 어류 중에 지금까지 우리 나라에 기록된 적이 없는 *Malthopsis annulifera* Tanaka을 통해 남부인 고리 앞바다에서 체장 49.9 mm의 1개체를 저인망으로 채집하였다. 이종의 국명은 "원꼭갈치"라 하고, 이들의 계수·계측형질을 사진과 함께 기재하였다. 그리고 꼭갈치속의 어류 두 종의 검색표를 함께 제시하였다.